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Computer & Control Abstracts

Science Abstracts Series C
January–June 1990

Subject Index

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SIX-MONTHLY INDEXES TO COMPUTER & CONTROL ABSTRACTS

Twice a year as part of their subscription to Computer & Control Abstracts, subscribers receive cumulative indexes for the periods January-June and July-December. Each index is in two parts—a Subject Index, and an Author Index which comprises personal and corporate author indexes, and indexes to conferences, book titles, and bibliographies. The List of Journals abstracted by INSPEC is also included with the July-December issue of the Author Index, while the supplement to that List is included with the January-June issue. Cumulative indexes for earlier years are also available: for details please see the inside back cover.

Subject index

The Subject index provides an alphabetical subject key to the articles included in the abstracts journal. Some general guidance on its use is given below:

1 Look in the index for the name of the specific subject in which you are interested. In most cases this name will be a heading in the index and you will find relevant articles under it. The majority of the subject headings fall into the following categories: property, phenomenon, substance or named object, instrument, device, theory, method, process, application, event.

2. Occasionally you will be directed from the subject heading chosen to a different heading under which the relevant or additional articles are listed.

3. If you do not find the subject heading you first chose, try a more general heading.

4. Each entry under the heading relates to an article appearing in the abstracts journal and gives the serial number of that article in the journal preceded by the last digit of the current year, e.g. 0-12345, i.e. abstract number 12345 in the abstracts journal for 1990.

The language of the article, if it is not in English, is also indicated, e.g. processing of a program schema using a computer system (*Japanese*) 0-17185.

Each entry starts with a Keyword or Keyphrase considered to be most relevant to the heading. On sorting these Keywords, the qualifying prefixes are usually ignored. (e.g. α-brass, 5-sulphosalicylic, 31 Cygni, n-Ge are sorted under brass, sulphosalicylic, Cygni, Ge respectively).

There are three main Keyword lists: alphabetical A-Z, elementary particles, and chemical symbols (organic substances are written and not given as chemical formula). More than one Keyword list may be present under each subject heading.

For document on, say, 'photoemission of germanium' at least two access points 'photoemission' and 'germanium' are provided. Under the heading 'photoemission' the Keyword will be 'Ge' and under 'germanium' the Keyword will be 'photoemission'.

In a case like this, it is advisable and quicker to use the heading 'photoemission' and go straight to the chemical symbol list for 'Ge'.

Intermetallic compounds are indexed under the appropriate alloy headings. The chemical formula is used as Keyword. However, it is important to realise in searching the chemical symbol list that, at present, alloys and intermetallic compounds are sorted separately. For example FeCo is sorted at the end of the Fe- list e.g. Fe-Al,... Fe-Co,... Fe-Si,... Fe-Si-B,... FeCo,... FeSi and so on in this order.

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Computer & Control Abstracts

Science Abstracts Series C

January–June 1990

Subject Index

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Subject index S1

Abbreviations and Acronyms

Abbreviations and acronyms are used in the modifiers in all INSPEC Cumulative Subject Indexes. Individual terms should be readily understood in the context of the subject heading.

1D	one dimensional
2D	two dimensional
3D	three dimensional
AC	alternating current
ACV	air cushion vehicle
A/D	analogue-to-digital
ADC	analogue-to-digital conversion
ADP	administrative data processing
ADPCM	adaptive differential pulse code modulation
AF	audio frequency
AFC	automatic frequency control
AFL	abstract family of languages
AGC	automatic gain control
AGR	advanced gas-cooled reactor
AGV	automatic guided vehicle
AI	artificial intelligence
ALU	arithmetic logic unit
ALV	autonomous land vehicle
AM	amplitude modulation
ANOVA	analysis of variance
ANSI	American National Standards Institute
AOI	automatic optical inspection
APC	adaptive predictive coding
APCM	adaptive pulse code modulation
ARMA	autoregressive moving average
ARQ	automatic repeat request
ASCII	American standard code for information interchange
ASIC	application specific integrated circuit
ASK	amplitude shift keying
AT&T	American Telephone & Telegraph
ATC	air traffic control
ATE	automatic test equipment
ATM	automatic teller machine
ATR	automatic target recognition
AVC	automatic volume control
BBC	British Broadcasting Corporation or Brown Boveri Corporation
BCD	binary-coded decimal
BCDMOS	bipolar-CMOS-DMOS
BEM	boundary element method
BER	bit error rate
BFL	buffered field effect transistor logic
BIBO	bounded input bounded output
BICMOS	bipolar-CMOS
BIST	built in self test
BIT	built in test
BOD	bistable optical device
Btx	Bildschirmtext
BVP	boundary value problem
BWR	boiling water reactor
C^{2}	command and control
C^{3}	command control and communications
C^{3}I	command control communications and intelligence
C^{3}L	complementary constant current logic
CAAB/AM	companded single sideband amplitude modulation
CAD	computer aided design
CADAT	computer aided design and testing
CADD	computer aided draughting and design
CAE	computer aided engineering
CAI	computer assisted instruction
CAL	computer aided learning
CAM	computer aided manufacturing or content addressable memory
CAR	computer aided retrieval
CASE	computer aided software engineering
CAT	computer assisted tomography or computerised axial tomography
CATV	community antenna TV
CB	citizens' band
CBI	computer based instruction
CBT	computer based training
CCD	charge-coupled device
CCITT	International Telephone & Telegraph Consultative Committee
CCL	capacitor coupled logic
CCTV	closed circuit television
CD	compact disc
CDM	code division multiplexing
CDMA	code division multiple access
CD-ROM	compact disc ROM
CECL	cascade-emitter coupled logic
CEGB	Central Electricity Generating Board
CELP	code excited linear prediction
CERN	European Council for Nuclear Research
CFG	context free grammar
CFL	context free language
CFSK	coherent frequency shift keying
CGH	computer-generated holography (-gram)
CIM	computer integrated manufacture
CISC	complex instruction set computer
CMI	computer managed instruction
CML	current mode logic
CMOS	complementary metal oxide semiconductor
CNC	computerised numerical control
CNR	carrier to noise ratio
COM	computer output to microform (fiche or film)
COVA	computer code validation
CPA	critical path analysis
CPM	continuous phase modulation or critical path method
CPU	central processing unit
CRO	cathode ray oscilloscope
CRT	cathode ray tube
CSMA	carrier sense multiple access

CSMA/CD	CSMA with collision detection
CT	computerised tomography
CTL	complementary-transistor logic
CW	continuous wave
D/A	digital-to-analogue
DAC	digital-to-analogue conversion
DAD	digital audio disc
DAMA	demand assigned multiple access
DASD	direct access storage device
DATAC	digital autonomous terminal access communication
DBMS	database management system
DBS	direct broadcasting by satellite
DC	direct current
DCFL	direct-coupled field effect transistor logic
DCTL	direct-coupled transistor logic
DDC	direct digital control
DDL	diode-diode logic
DES	data encryption standard
DFT	discrete Fourier transform
DIP	dual in-line package
DM	delta modulation
DMA	direct memory access
DMM	digital multimeter
DNA	digital network architecture
DNTS	digital data exchange network testing system
DoD	Department of Defense (USA)
DOF	degree of freedom
DOS	disc operating system
DP	data processing
DPCM	differential pulse code modulation
DPDA	deterministic pushdown automaton
DRAM	dynamic RAM
DSO	digital storage oscilloscope
DSS	decision support system
DS-SSMA	direct sequence-spread spectrum multiple access
DSI	digital speech interpolation
DSP	digital signal processing
DTL	diode transistor logic
DVM	digital voltmeter
EAROM	electrically alterable ROM
EAX	electronic automatic exchange
ECC	error correction code
ECG	electrocardiography (-gram)
ECL	emitter coupled logic
EDIF	electronic data interchange format
EDP	electronic data processing
EEG	electroencephalography (-gram)
EEPLD	electrically erasable programmable logic device
EEPROM E^{2}PROM	electrically erasable PROM
EFL	emitter follower logic or emitter function logic
EFT	electronic funds transfer
EHV	extra high voltage
ELF	extremely low frequency
EM	electromagnetic
EMC	electromagnetic compatibility

EMF	electromotive force
EMG	electromyography (-gram)
EMI	electromagnetic interference
EOF	end of file
EOQ	economic order quantity
EPA	Environmental Protection Agency (USA)
EPROM	erasable PROM
ESA	European Space Agency
ESOC	European Space Operations Centre
ESPRIT	European Strategic Programme for Research in Information Technology
ESS	electronic switching system
EX-OR	exclusive OR
FAMOS	floating gate avalanche MOS
FBR	fast breeder reactor
FDDI	fibre distributed data interface
FDM	frequency division multiplex(ing)
FDMA	frequency division multiple access
FEA	finite element analysis
FECL	feedback emitter coupled logic
FEM	finite element method
FET	field effect transistor
FFT	fast Fourier transform
FIFO	first in first out
FIR	finite impulse response
FLOPS	floating point operation per second
FM	frequency modulation
FMS	flexible manufacturing system or flight management system
FPLA	field programmable logic array
FSK	frequency-shift keying
GAMBIT	gate modulated bipolar transistor
GKS	Graphical Kernel System
GMDH	group method of data handling
GPIB	general purpose interface bus
GTO	gate turn-off
HBT	heterojunction bipolar transistor
HDLC	high level data link control
HF	high frequency
HFET	heterojunction field effect transistor
HLL	high level language
HTGR	high temperature gas-cooled reactor
HV	high voltage
HVAC	heating, ventilation and air conditioning
HVIC	high voltage integrated circuit
HWR	heavy water reactor
IC	integrated circuit
IDFL	integral diode FET logic
IF	intermediate frequency
IFE	intelligent front end
IGBT	insulated gate bipolar transistor
IGES	Initial Graphics Exchange Specification
IGFET	insulated gate field effect transistor
I^{2}L	integrated injection logic
I^{3}L	isoplanar I^{2}L
IIR	infinite impulse response
IKBS	intelligent knowledge based system

ILS	instrument landing system
IMPATT	impact avalanche transit time
INS	inertial navigation system or information network system
INTELSAT	international telecommunications satellite consortium
I/O	input/output
IPSE	integrated programming support environment or project support environment
IPSS	international packet switching system
IR	infrared
IRS	information retrieval system
ISDN	integrated services digital network
ISDSN	integrated services digital satellite network
ISFET	ion-sensitive field effect transistor
ISI	intersymbol interference
ISL	integrated Schottky logic
ISO	International Standards Organization
IT	information technology
ITU	International Telecommunication Union
IVP	initial value problem
JCL	job control language
JFET	junction field effect transistor
JIT	just in time
JTIDS	joint tacticle information distribution system
KBS	knowledge based system
LAN	local area network
LC	inductance-capacitance
LCD	liquid crystal display/device
LD	laser diode
LED	light emitting diode
LF	low frequency
LIFO	last in first out
LOS	line of sight
LP	linear programming
LPC	linear predictive coding
LQG	linear quadratic Gaussian
LSA	least squares approximation
LSI	large-scale integration
LV	low voltage
LWR	light water reactor
MAN	metropolitan area network
MAP	manufacturing automation protocol
MATE	modular automatic test equipment
MESFET	metal-semiconductor field effect transistor
MF	medium frequency
MHD	magnetohydrodynamics
MHS	message handling system
MIDI	musical instruments digital interface
MIL-STD	Military Standard
MIMD	multiple instruction multiple data
MIMIC	millimetre-wave monolithic integrated circuit
MIMO	multiple input multiple output
MIPS	million instructions per second
MIS	metal-insulator-semiconductor or management information system
MISFET	metal insulator semiconductor field effect transistor
MISO	multiple input single output
MIT	Massachusetts Institute of Technology
MMI	man machine interface
MMU	memory management units
MNOS	metal-nitride-oxide-semiconductor
MODFET	modulation doped field effect transistor
MOS	metal-oxide-semiconductor
MOSFET	metal-oxide-semiconductor field effect transistor
MOST	metal-oxide-semiconductor transistor
MRAC	model reference adaptive control
MRP	materials requirements planning
MRP II	manufacturing resources planning
MS	management science
MSE	mean square error
MSI	medium scale integration
MTBF	mean time between failures
MTL	merged transistor logic
MTTF	mean time to failure
NAND	not-and(logic)
NAPLPS	North American Presentation Level Protocol Syntax
NBFM	narrowband frequency and modulation
NC	numerical control
NDT	nondestructive testing
NGS	nuclear generating station
NHS	National Health Service
NLP	natural language processing
NMOS	N-channel metal-oxide-semiconductor
NMR	nuclear magnetic resonance
NOR	not-or(logic)
NPP	nuclear power plant
NRZ	non-return to zero
NTL	nonthreshold logic
NVRAM	nonvolatile random access memory
OA	office automation
OCR	optical character recognition
ODA	office document architecture
ODE	ordinary differential equation
OEM	original equipment manufacture(r)
ONA	open network architecture
OR	operations research
OS	operating system
OSI	Open Systems Interconnection
PABX	private automatic branch exchange
PACS	picture archiving and communication systems
PAL	programmable array logic
PAM	pulse amplitude modulation
PBT	permeable base transistor
PBX	private branch exchange
PC	printed circuit or personal computer or programmable controller

PCB	printed circuit board
PCM	pulse code modulation
PDE	partial differential equation
PEEL	programmable electrically erasable logic
PF	power factor
PFM	pulse frequency modulation
PID (PI, PD)	proportional+integral+differential (derivative)
PLA	phase locked array or programmable logic array
PLC	programmable logic controller
PLD	programmable logic device
PLL	phase locked loop
PM	pulse modulation
PMOS	P-channel metal-oxide-semiconductor
POS	point of sale
PROM	programmable read-only memory
PSDN	packet switched data network
PSK	phase shift keying
PSS	packet switching service or Packet SwitchStream
PSTN	public switched telephone network
PTFE	polytetrafluoroethylene
PTM	pulse time modulation
PVC	polyvinylchloride
PWM	pulse width modulation
PWR	pressurised water reactor
QA	quality assurance
QC	quality control
RAM	random access memory or reliability, availability and maintainability
RC	resistance-capacitance
RCTL	resistor-capacitor-transistor logic
R & D	research and development
RDBMS	relational database management system
RDS	radio data systems
RF	radio frequency
RFI	radio frequency interference
RISC	reduced instruction set computer
RLC	resistance-inductance-capacitance
RMS	root-mean-square
ROM	read-only memory
RPM	revolutions/minute
RPV	remote piloted vehicle
RTL	resistor-transistor logic
RTTY	remote teletype terminal
SAN	small area network
SAM	serial access memory
SAR	synthetic aperture radar
SCFL	source coupled field effect transistor logic
SCR	silicon controlled rectifier
SCSI	small computer system interface
SDFL	Schottky diode field effect transistor logic
SDI	selective dissemination of information or Strategic Defense Initiative
SDLC	synchronous data link control
SDM	space division multiplexing
SDMA	space division multiple access
SFL	substrate fed logic
S/H	sample and hold
SIMD	single instruction multiple data
SISO	single input single output
SLIC	subscriber line interface circuit
SMD	surface mount device
S/N	signal-to-noise
SNA	Systems Network Architecture
SNR	signal to noise ratio
SOA	safe operating area
SOIC	small outline integrated circuit
SOR	successive over-relaxation
SOS	silicon on sapphire
SOT	small outline transistor
SPC	statistical process control or stored program control
SQC	statistical quality control
SQL	standard query language
SRAM	static random access memory
SSB	single sideband
SSFL	Schottky-barrier coupled Schottky-barrier gate FET logic
SSI	small scale integration
SST	supersonic transport
SS-TDMA	satellite switched time division multiple access
STD	subscriber trunk dialling
STI	scientific and technical information
STL	Schottky transistor logic
STOL	short take-off and landing
SW	short wave
SWR	standing wave ratio
TASI	time assignment speech interpolation
TCAS	traffic alert and collision avoidance system
TDF	transborder data flow
TDM	time division multiplex(ing)
TDMA	time divison multiple access
TOP	technical office protocol
TTL	transistor transistor logic
TTY	teletype terminal
TV	television
UART	universal asynchronous receiver transmitter
UHF	ultra high frequency
UHV	ultra high voltage
UIMS	user interface management system
ULA	uncommitted logic array
ULF	ultra low frequency
ULSI	ultra-large scale integration
US	ultrasonic
USART	universal synchronous/asynchronous receiver transmitter
UV	ultraviolet
VAN	value added network
VCR	video cassette recorder
VDT	visual display terminal
VDU	visual display unit
VFD	vacuum fluorescent display

VHF	very high frequency
VHSIC	very high speed integrated circuit
VLF	very low frequency
VLSI	very large scale integration
VM	virtual machine
VMOS	vertical channel MOS
VRAM	video random access memory
VRC	visual record computer
VS	virtual storage
VTOL	vertical take-off and landing
VTR	voltage transformation ratio or video tape recorder
WAN	wide area network
WDM	wavelength division multiplex(ing)
WORM	write once read many times
WP	word processing
WSI	wafer scale integration
XOR	exclusive OR

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Esaki diodes *see tunnel diodes*

ESCA *see electron spectroscopy; spectrochemical analysis*

ESD *see electrostatic discharge*

ESPRIT *see research initiatives*

ESR *see paramagnetic resonance*

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IC engines *see internal combustion engines*

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IEXE *see ion microprobe analysis; X-ray chemical analysis*

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IGFET *see insulated gate field effect transistors*

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IKBS *see knowledge based systems*

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LEC growth *see crystal growth from melt*

Lecher wires *see high-frequency transmission lines*

LED *see light emitting diodes*

LED displays *see electroluminescent displays*

legal data processing *see law administration*

legal protection of software *see industrial property*

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MOCVD *see chemical vapour deposition*

MOCVD epitaxial growth *see vapour phase epitaxial growth*

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modelling, computer *see computer aided analysis*

models *see modelling*

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MQW lasers *see semiconductor junction lasers*

MR imaging (biomedical) *see biomedical NMR*

MRI (medical) *see biomedical NMR*

MRP *see manufacturing data processing; operations research; production control*

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MSK *see minimum shift keying*

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PBX *see private telephone exchanges*
PCB *see printed circuits*
PCB accessories *see printed circuit accessories*
PCB design *see printed circuit design*
PCB manufacture *see printed circuit manufacture*
PCB testing *see printed circuit testing*
PCM *see pulse-code modulation*
PCM (computing industry) *see DP industry*
PCM links *see pulse-code modulation links*
P^{2}CMOS *see CMOS integrated circuits*
PD control *see two-term control*
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ARENA software aid for nuclear fuel reprocessing reliability studies 0—4506
ARTHUR, adaptation for microcomputers 0—16163
Artline, computer graphics package 0—21146
Artus picture processing program *(German)* 0—6850
Asea Brown Boveri AG's computer-aid systems *(German)* 0—15737
ASFA, power system automation functions development environment package *(Italian)* 0—25422
Asyst package for data acquisition and processing *(French)* 0—7834
Asystant GPIB software package from Asyst software family *(German)* 0—35262
ATG test generation software , using open software architecture and interpretive metalanguage 0—36970
AUTO verification system 0—26534
Autodesk's Animator version 1.0, desktop animation and image processing 0—34998
Autograph, process calculi expressions editor 0—26535
Automan decision support program for automated manufacturing equipment investment 0—28779
automated cartography with MacSAIF software *(French)* 0—23574
automated design through artificial intelligence techniques 0—22551
Autoturn, automatic NC program generating package 0—9622
AVENU software system for wind form design, wind flow and turbine wake calcs. 0—9162
Aztec C and the ANSI C standard delayed 0—7960
Aztec C Compiler for the Macintosh 0—2936
backup programs, Core Fast, Fastback Plus and Turbo Backup *(German)* 0—14742
balanced binary tree code for scientific applications 0—3690
bank DP, software RAM disc to relieve systems bottleneck 0—35657
Bank Street College educational technology research projects 0—21787
BASIC statistics for IBM computers: an integrated instructional statistical package 0—3639
BATCH TM software for chemical industry process control 0—25683
BBN/Slate package for electronic multimedia collaboration 0—8475
Bessel functions programs, performance evaluation 0—23971
Bibliography Writer, software for generating bibliographies in libraries 0—22173
bibliometric study of Nieuwenhuysen's bibliography of microcomputer software for online information and documentation work 0—29390
Bibliotech package, New Testament with concordance 0—37503
binary file transfer with error checking using communication software and modem 0—8137
biological macromolecule selection from electron micrographs, software package 0—36409
biomedical image processing and analysis 0—3820
BOC Ltd's performance analysis and capacity planning, SMF/RMF data usage 0—31192
book keeping software for under 2000 French francs *(French)* 0—15569
Boosters 4 and 4PRINT public domain software, review 0—35162
Borland Graphics Interface 0—7864
Borland Quattro Professional *(German)* 0—15410
Bravo Mac, CAD/CAM package *(Italian)* 0—29834
Brazil's software market and foreign enterprise 0—31107
bridge packages for data transfer between incompatible computers 0—28293
BRIEF, a word processor for programmers *(French)* 0—21769
BRKF45, FORTRAN subroutine for solving 1st order systems of nonstiff IVPs for ODEs 0—29396
Btx software decoders for PCs *(German)* 0—15062
BUCOP education package for control system CAD tuition 0—23439
business graphics, best buys 0—35565
business graphics, GBA graphing and charting package 0—35529
business graphics packages, review *(German)* 0—8397
business graphics software packages, buyer's guide *(French)* 0—2813
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C++ V2.06 from Zortech for MS.DOS 0—35134
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CAD software development and monitoring with MONOS instrumental system 0—21030
CAD with GRAFOR graphics package on SM-4 workstation, add-on software library 0—29843
CAD/CAE and machine construction *(German)* 0—15736
CAD/CAM software, buyer's guide 0—15785
CAD/CAM yearbook (1989/90) 0—15782
CADD for TV headend reorganisation 0—30230
CADdy, PC CAD system, experience of use *(Czech)* 0—16360
CAE software in manufacturing engineering education 0—30891
CAE systems, buyer's guide 0—22527
CAI, software products for assisting design and implementation *(German)* 0—17509
CAI in higher education with ELFsoft 0—17473
CAI methods, expert systems, interactive video and software packages for PCs 0—4554
CAIRS-TMS, text retrieval software package 0—16018
CAL, knowledge engineering approaches 0—17445
calculus, fundamental theorem, teaching using computer algebra systems 0—17507

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calibration software package for digital storage oscilloscopes 0–30388
CALIM CAI package for three-phase induction motor education 0–23535
Calink CIM package for PC board testing *(Dutch)* 0–9327
CALPOS high perform. PC software package for power system anal. and planning 0–29883
CAR system implementation, selection and evaluation of hardware and software 0–21730
Case, package for development of business systems *(German)* 0–28665
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CASE tool for real-time systems development *(French)* 0–27936
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CASE tools for distributed development environments conf., London, UK (June 1989) 0–7759
CASE tools packages for PCs and workstations 0–14628
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CIRCUIT package for invertor PWM control strategies 0–29998
CLAIMS, floppy disc package for construction law 0–21850
Clarity, text-based word processing package with links to Ventura Publisher 0–35633
CLIMEX: recent developments in a computer program for comparing climates in ecology 0–36475
Clinical Assessment System software package, for social work 0–30838
Clip Art 3D, 3D picture book on CD-ROM *(German)* 0–21133
Clipper, dBase compiler and more *(German)* 0–21438
Clipper and dBASE tools 0–15110
CLUSTER package for cluster anal., topological structure *(Bulgarian)* 0–430
CMF Snapshot, hardware independent capacity management 0–28188
Collin's on-line dictionaries for languages translation, Nife non-interactive file editor 0–35620
COM 726 software package for position control, SIMATIC S5 programmable controller 0–30420
CommonView, object-oriented C++ library for Windows and Presentation Manager applications 0–2511
COMPASS package for electric utility project management 0–3979
compressor station gas turbine diagnosis systems, software package, Pegasys DCI-1 0–23196
Compusketch, AI package in use at Owensboro, Kentucky 0–3308
computer animation 0–14779
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computerized reading instruction package for communicatively impaired students 0–37402
concept 2D, CAD package, use by Nike for design of footware 0–17401
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continuous system modelling as used in ACSL and PRO-MATLAB, matrix operators 0–21687
control system CAD, IBM-compatible PC packages available in Germany *(German)* 0–23019
Control System Emulator using data acquisition and software package 0–25104
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Conzept 16, multi-user database for IBM-compatible computers *(German)* 0–8143
copyright protection 0–23803
CORAL search program for semiconductor SiO_2 thin film ellipsometry characterisation 0–9377
Corel Draw, computer art program for IBM PC-AT *(French)* 0–2812
Corel Draw, nimble drawing master *(German)* 0–14814
courseware authoring systems , selection criteria 0–14633
CRAM CAD package for building cable management 0–36618
cross-age tutoring for writing and computing education 0–31051
CROSSTALK software for online searching 0–29358
crypton, Savedir 3.0, Close Access II and Elkey-4 2.0 security packages *(German)* 0–14743
cT language, simulation language for educational process modeling 0–35077
CTH 3D large deformation shock wave physics code 0–22394
CTH shock wave physics code, hypervelocity impact calcs. 0–22395
CTMS, continuous-time model simulation toolkit in Turbo Pascal 0–15347
CTRL-C and ACSL packages for teaching of control engineering 0–10092
Culture 1.0, HyperCard application, multimedia contextual guide to Western history and culture 0–3082
CYLINS, cylinder interactions teaching programs, features 0–10126
CYLINT, cylinder interactions teaching programs 0–10126
Dan Bricklin's PageGarden, text formatter for laser printers 0–21764
data acquisition system software packages and PC SCADA graphics software 0–21068
DATA DESK Professional, statistics package 0–36113
Data Handler, database program selection and comparison 0–3041
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database packages, dBASE III and R:Base 5000 compared with VAX-11 Datatrieve 0–8204
database packages for microcomputers, buyer's guide 0–15131
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database software packages for shared access to files on PC networks *(German)* 0–15998
Dataflex, databank program for IBM PCs *(German)* 0–35266
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dBASE and Clipper tools 0–15110
dBase IV: a review 0–28378

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dBase IV package review *(Slovak)* 0–8217
dBase IV tips for faster operations *(German)* 0–28370
dBASE symposium, USA (Fall, 1988) 0–15133
dBFAST, database package for running dBASE-like programs in windows environment 0–8206
dBFast/Windows, dBase development environment running under Microsoft Windows 0–27849
Dbman V, relational DBMS packages *(German)* 0–28368
DBMS and other products 0–35323
DBS estimating system, appl. by Hunter & Clark stonework restorers 0–8626
DC machine EM vibration anal., finite element method, FLUXMECA package 0–22618
dCLIP, Clipper interpreter 0–28163
DeBuMA: description, building and management of applications 0–36892
DEC All-In-1 phase II, distributed client/server integrated office system 0–28718
DEC VAX/VMS database software packages, RdbExpert and DECtrace 0–35273
DECview3D application, CDA in science and engineering 0–35018
DECwindows and DECwrite integrated packages for the office environment 0–15260
DECwrite editor , relationship with Digital document interchange format 0–35062
Deltasoft's Origins 1.0, Mac CAD product 0–36596
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DeluxePaint III, Amiga paint program 0–21103
Derive–a mathematical assistant 0–36120
Derive and Reduce, computer algebra systems *(German)* 0–22290
Design works, logic design simulator for design of von Neumann computer in a introductory course 0–17499
DesignAid, analysis workbench package for computer company use 0–7767
Designer 2.0, graphics package *(German)* 0–14815
DesignStudio desktop publishing product from Letraset 0–35638
desktop publishing accessories and utilities, buyer's guide 0–8492
desktop publishing products 0–35632
desktop publishing software packages , buyer's guide 0–28748
DESPLATE expert system for plate rolling mill diagnosis 0–32799
DFSORT 11 overview and tuning 0–21097
Diagraph Windows and Corel Draw, graphics programs for IBM compatible PCs *(German)* 0–35000
Dialog OnDisc software products, communications package and retrieval program 0–3477
DIFF, symbolic operator calculus for difference equation *(Japanese)* 0–36128
differential equations, computer symbolic algebra soln. using muMATH 0–16057
DIFINV, manipulator inverse differential model and singularity symbolic computation software 0–17084
Digi Paint 3, paintbox program packages review *(German)* 0–28021
digital system level top down design, SES/Workbench system and TeST behavioural to structural translator 0–9335
DISTAS–microsoftware for static and dynamic analysis of structures 0–37281
Do graphics software package, industrial control appls. 0–7849
DocuComp, document comparison program for IBM PC compatibles 0–2960
document conversion programs for word processors *(German)* 0–14926
document image processing systems, mid-range to large 0–8866
DOS 4.0 and Microsoft Windows *(French)* 0–21365
DOS application switchers 0–28213
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downloaded data conversion software, criteria for comparison and assessment 0–23948
DR-DOS 3.41 for IBM PCs *(German)* 0–14971
DSP design with DADiSP 0–22824
DSS and executive information systems , dedicated computer assistance for managers *(German)* 0–15402
DX Helper, Version 1.3 DX software for Apple Macintosh 0–9465
dynamic system identification using intelligent knowledge-based system 0–23036
EASY5 package for DC/DC power convertor simulation 0–9411
EASY5 package for spacecraft power system CAD/analysis/simulation 0–9293
EASYSIM, complete user-oriented continuous systems simulation software 0–23221
EBOOK3 electronic book *(French)* 0–3585
EC-NET, LAN software for the EC 1834 *(German)* 0–35264
econometric research software for IBM PC and compatibles 0–15562
ECSIM, MOS cct. simulation package on IBM-PC, teaching appl. 0–22770
EDAS-P electronic design automation system for IBM PC with EGA card *(Korean)* 0–4071
EDI, data exchange formats and software packages *(Spanish)* 0–21065
education, business curriculum, microcomputer software integration 0–10028
education, expert system based training package for owner managers of small businesses 0–17475
education, geography teaching using PROLOG 0–37445
education, mathematics for engineering, 2nd order differential equations taught using computer algebra system 0–10014
education IBM emulation software for teaching IBM skills 0–10041
education in data management with file management system, graphics-driven , EDUBASE 0–4720
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education in statistical computing using software packages 0–23466
education shareware for teaching computer literacy to university staff 0–4689
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educational software, feedback as motivating factor 0–37387
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educational software for handicapped learners, selection model 0–37386

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- educational software with whole language philosophy for teaching reading/language arts 0−37388
- Egat power plant data acquisition system, software develop. 0−29993
- EIM systems and the move towards open architecture 0−26912
- Eins A version 1.0, Star Planner version 2.0, and Star Calc 3D, spreadsheets *(German)* 0−35526
- ELAIS-87 software system for multilevel hybrid simulation 0−36778
- ELDESIGN CAD package for plant engineering appls. *(German)* 0−3890
- Electric Poet, authoring system for critical analysis in humanities 0−37380
- electrical engineering education using computer-based circuit/logic simulation 0−4561
- electronic publishing for daily sports tabloid, The National 0−36016
- Electronic Whole Earth Catalog, review 0−22163
- Emc^2: a mesh and bidimensional contour editing software package *(French)* 0−21110
- EMMA, simple algebra tutor 0−37430
- EMPACK, subprograms toolbox for method-of-moments calcs. of EM fields 0−22582
- EMTP package for power system transient anal. 0−16502
- EMTP package for power system EM transient simulation 0−22609
- EMTP package for turbogenerator torsional oscillation analysis 0−16500
- EMTP program for steady state anal. of space vehicle voltage multipliers 0−9307
- EndNote, bibliographic software for Apple Macintosh 0−29328
- EndNote, reference database and bibliography maker, software package 0−36022
- Engineous, coupling symbolic manipulation and numerical simulation for complex engineering designs 0−3899
- ENVIRO package for power overhead line characts. modelling 0−29948
- Equus, parallel processing operating system which runs under Unix 0−8082
- estimating software packages 0−8536
- ETMSP software package for power system dynamics anal. 0−36693
- Eureka: the Solver, equation solving software package 0−3630
- Eurix System V/386 version 3.2, European version of Unix for 386 processor machines *(German)* 0−21335
- EUROSTAG software for power system dynamic simulation *(French)* 0−29889
- evaluation and selection methodology for business software 0−4892
- evaluation guideline for ideal microcomputer simulation package 0−8383
- EXAFS spectra fitting method, struct. phase transition appls. 0−29543
- Excel for OS/2 0−21728
- Excel spreadsheet system for windows prototyping 0−7708
- Excelerator, CASE tool for systems design and documentation 0−27886
- EXCELERATOR as case tool for systems analysis/design in large organisation 0−7765
- Executive Edge program, decision support for managers *(German)* 0−35594
- executive support systems, development tools 0−3202
- Executive Track, personnel management software package *(Italian)* 0−21718
- expert system development tools for MS-DOS *(Spanish)* 0−8293
- expert system products for PCs 0−21522
- expert system shell programs for Apple Macintosh 0−21466
- ExpertPRIZ, hybrid expert system building tool 0−21570
- exploratory data analysis, BASIC program 0−3635
- Exploring Measurement, Time, and Money—Level I, CAI package 0−17501
- Extract, text management anal retrieval system 0−8860
- Ez-Tree, family history program 0−37492
- F-PC, highly optimized public domain Forth for IBM-PC 0−2869
- facsimile market survey 0−4207
- FactoryLink software package for process control in photovoltaic mfg. environment 0−17091
- family connection, family history program 0−37490
- Fast Response T-DebugPLUS 4.0 review 0−35174
- FEA, interactive preprocessor for SAP IV, NASTRAN; ADINA, in teaching 0−8020
- FEA, updated profile front minimization algorithm 0−8022
- FEA solver programs become integrated, accurate and fast 0−26399
- FELD 88 software package for magnetic field calc., iterative methods *(German)* 0−22569
- FEMTO package for pulsed power supply EM field anal. 0−22657
- FIELDS software package for electric, magnetic and thermal problems anal. 0−16184
- FIGARO package for astronomical data analysis 0−36590
- financial accounting programs, comparison *(German)* 0−8525
- financial planning with interactive graphics program, EKA *(German)* 0−8547
- Finanz/2, integrated PC application for order processing, warehousing and finance *(German)* 0−21820
- Finesse version 2.0, DTP package, use with Scanman manual scanner for inputting article into computer *(German)* 0−15499
- flexible manufacturing systems validation by simulation 0−29025
- Flodraw graphics editor program, review 0−9311
- Flowtran package for spacecraft power electronic design 0−9408
- flywheel magnetic bearings, CAD package 0−3925
- FMS Planner, microcomputer-based workpiece anal. package for FMS planning *(German)* 0−29010
- FOCUS database package, accounting appls. 0−21834
- font processing packages for postscript *(German)* 0−15510
- form design software 0−8498
- FormBase, integrated forms processor, database management system and report publisher 0−15084
- FormMaster, program for creation of standard forms on IBM PCs *(German)* 0−21770
- Formular-Manager and Formworx, form printing packages *(German)* 0−15492
- FORTRAN compilers, RM/FORTRAN and Microsoft FORTRAN 0−35135
- fourth generation report generators, selection criteria 0−7949
- FoxBASE+, relational database management system 0−21436
- FoxPro, dBase compatible with improved user-friendliness *(French)* 0−28379
- FoxPro version 1, dBASE clone package 0−28371
- Framework II integrated package *(Slovak)* 0−28661
- front end packages for online searching of chemical structure databases 0−3615
- front-end software packages for online searching 0−16023
- FTAM products and their users 0−15064

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- Fullimpact 1.1, business graphics package *(French)* 0−35545
- G2 real-time expert system for industrial process control 0−32788
- GammaFax CP board, internal fax card with PostScript file support 0−34724
- gas pipeline simulation for leak detection, SIROGAS program 0−37283
- GEMMA, the complementary tool of the GRAFCET for use with PLCs 0−17133
- Gene Genie, family history program 0−37491
- GENETIK Visual Interface Modelling, machine stop loading—a planning board approach 0−8674
- GENEX: a computer program which generates rules for an expert system 0−35387
- geometric programming package 0−16060
- GlassView software package for optical designers 0−36297
- Glockenspiel CommonView, graphical user interface toolkit for C++ 0−20950
- GMT, 3D problems of high complexity computations 0−22579
- GoldWorks II, hybrid expert-system development environment for 80386-based PCs 0−20951
- GPIB control software packages for IEEE-488 instruments 0−37086
- GPSS-FORTRAN, pseudorandom number generators, quality tests 0−16041
- GPSS-FORTRAN V.3, simulation of manufacturing systems 0−8669
- GRAMSKIL, call grammar program for learners of English as second language 0−30874
- Graph Cut, composition and graphics system for plotters *(German)* 0−14729
- graphics interfaces *(French)* 0−35413
- graphics tool for generating realistic images of trees 0−7929
- graphics with Hercules card under FORTH *(German)* 0−14804
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- Harwell-Boeing sparse matrix collection, sparse matrix test problems 0−29395
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- health care planning, management decision modelling with microcomputers 0−35788
- Heart to Heart software package for couples to explore their relationship 0−30839
- HeartLab and EkgLab, simulation programs for teaching cardiology techniques to medical students 0−10024
- Hijaak 1.1 and Bridge 2.10, graphics formats conversion packages *(German)* 0−28059
- Hiview decision-support package for institutional relocation evaluation 0−3230
- holograms, microcomputer generated, programming aspects 0−22324
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- HOMPACK, mathematics package for finding all isolated solutions to polynomial systems 0−29399
- HP's AIMS, Advanced Image Management System 0−35601
- HVACSIM+/DASH2 packages interfacing for HVAC systems simulation 0−29949
- HyperCard, use for Boolean searching 0−29271
- HyperCard and interactive video for natural language learning 0−17440
- HyperCard misconceptions 0−27853
- HyperCONTROL, a report generator for HyperCard 0−15139
- HyperExe V1.2, hypertext system *(French)* 0−35325
- HyperLang, hypermedia authoring system for computer-assisted language learning 0−23382
- hypermedia systems for collaborative management work 0−3088
- HyperNeWS, interactive interface design tool 0−21005
- HyperTools #1, HyperTools #2, Stack Cleaner, software packages for Macintosh user interface handling 0−35321
- IBM Current 1.00, personal information manager 0−35599
- IBM Distribution Automation Edition software package *(German)* 0−15843
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- IBM PALS adult literacy system review 0−30906
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- interactive computer aided planning package for rural telephone networks 0−4215
- Interactive Laboratory System (ILS) signal processing software, application program package *(Japanese)* 0−6831
- interactive online signal analysis and system identification package 0−17073
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- interface technology for dBASE III and AutoCAD *(Chinese)* 0−21084
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LINCII database management: some crucial do's and don'ts 0−3046
linear DE, parameter determ. for technical process, software package *(German)* 0−22288
linguistics, algorithm for inflected words in Italian language reduction to root *(Italian)* 0−37505
LITDAT, software package for computer aided literature work and reference collection *(German)* 0−30983
local network planning 0−4212
Logicad, engineering drawing package *(German)* 0−34999
LOGICAT, MICR-CDS/ISIS and DIALOG-M, information management packages for libraries, comparative evaluation *(Spanish)* 0−3499
Logimenu mouse packet for PCs *(German)* 0−13985
LOGSIM, logic simulation program *(Chinese)* 0−6688
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Mac Drap: an expert system for designing stacking sequences of composite materials *(French)* 0−30662
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MacLang authoring system for foreign language listening comprehension material 0−23379
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Macsyma algorithm for nonlinear observer normal form computation 0−18158
MACSYMA package for the generation and manipulation of Chebyshev series 0−22307
maintenance software evaluation, analysis tools , military appl. 0−28933
Making Waves: a simulation and modeling computer-tool for studying wave phenomena 0−17496
MALPAS tool for safety critical software reliability anal. 0−14601
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Manifest program for 2D internal flows modelling in regenerator 0−3762
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manufacturing systems, complex and hierarchical, simulation, object-oriented programming and system description , integrated package 0−30540
MAPPER 1100, future enhancements 0−27883
MAPPER graphics customization 0−28064
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SREMP *see electromagnetic pulse*

SS-TDMA *see time division multiple access*

stabilisation *see stability*

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